IN THE CLAIMS:

Please cancel claims 2-20 without prejudice.

1. (Previously Presented) A method of decreasing the concentration of fuel in a fuel cell system comprising the steps of:

introducing a carbonaceous fuel to a catalyst in the presence of oxygen;

reacting at least a portion of said fuel with said oxygen on said catalyst to produce water; and

using at least a portion of said water to dilute said fuel.

2-20 (Cancelled)

21. (Withdrawn) A direct oxidation fuel cell system, comprising:

(A) a direct oxidation fuel cell having

(i) a catalyzed membrane electrolyte, having an anode aspect and a cathode aspect;

(ii) a fuel cell housing enclosing said fuel cell with an anode chamber being defined between said anode aspect of the catalyzed membrane electrolyte and a first exterior portion of said cell housing, and a cathode chamber being defined between said cathode aspect of the catalyzed membrane electrolyte and a second exterior portion of said fuel cell housing;

(B) a fuel source coupled to said fuel cell that delivers a carbonaceous fuel substance to said fuel cell;

(C) a source of oxygen, coupled to said fuel cell;

(D) a water generating assembly in fluid communication with said fuel source, said source of oxygen, and said fuel cell; and

(E) a load detachably coupled across said fuel cell such that when said fuel cell is generating electricity, said load is coupled across said fuel cell, and power produced by said fuel cell is delivered to said load.

22. (Withdrawn) The direct oxidation fuel cell system as defined in claim 21 wherein said water generating assembly is disposed between said fuel source and said anode chamber of said direct oxidation fuel cell and further includes a controller for controlling the amount and introduction of fuel and oxygen to said water generating assembly and to said fuel cell.

23. (Withdrawn) The direct oxidation fuel cell system as defined in claim 22 wherein said controller includes one of the following: a valve, or a valve assembly including one or more valves, said controller further including means for controlling the opening and closing of said valve, or one or more of said valves in the valve assembly.

24. (Withdrawn) The direct oxidation fuel cell system as defined in claim 21 wherein said carbonaceous fuel substance includes methanol.

25. (Withdrawn) The direct oxidation fuel cell system as defined in claim 21 further comprising said water generating assembly being coupled to said anode chamber of said direct oxidation fuel cell in such a manner that water that is produced may be selectively added to said anode chamber to control the concentration of fuel.

26. (Cancelled)

27. (Cancelled)

28. (Cancelled)

29. (Withdrawn) The direct oxidation fuel cell system as defined in claim 21 wherein said water generating assembly is in fluid communication with said fuel source and said fuel cell.

30. (Withdrawn) The direct oxidation fuel cell system as defined in claim 29 wherein said fluid communication includes a first conduit connected between said water generating assembly and said fuel source, and a second conduit connected between said fuel source and said direct oxidation fuel cell.

31. (Withdrawn) The direct oxidation fuel cell system as defined in claim 30 further comprising at least one of the following: a first fluid flow controller for controlling the introduction of fuel through said first conduit to said water generating assembly, and a second fluid flow controller for controlling the fluid flow through said second conduit from said water generating assembly to said direct oxidation fuel cell.

32. (Withdrawn) The direct oxidation fuel cell system as defined in claim 31 wherein said at least one of said first and second fluid flow controllers includes at least one of the following: a valve, and a valve assembly that includes one or more valves and means for controlling the opening and closing of said valve, or one or more valves in the valve assembly.

33. (Withdrawn) The direct oxidation fuel cell system as defined in claim 29 wherein said fluid communication includes a first conduit connected between said water generating assembly and said fuel source, and a second conduit connected between said water generating assembly and said direct oxidation fuel cell, and a third conduit connected between said fuel source and said direct oxidation fuel cell.

34. (Withdrawn) The direct oxidation fuel cell system as defined in claim 33 further comprising at least one fluid flow controller for controlling the introduction of fluids into or through one of said first, second and third conduits.

35. (Withdrawn) The direct oxidation fuel cell system as defined in claim 34 wherein said fluid flow controller includes one of the following: a valve, or a valve assembly that includes one or more valves and means for controlling the opening and closing of said valve or one or more valves in the valve assembly.

36. (Withdrawn) The direct oxidation fuel cell system as defined in claim 21 wherein said water generating assembly is a substrate that has a catalyzed surface and said substrate is comprised of a substantially fuel-permeable material such that fuel can permeate through, and carbon dioxide is released from or used to perform work with the fuel cell system, while generated water is collected.

37. (Withdrawn) The direct oxidation fuel cell system as defined in claim 36, wherein said water generating assembly is a substrate that has a catalyzed surface and said substrate is comprised of a substantially gas-permeable, liquid impermeable material, such that gases can travel through said substrate, but water cannot travel through said substrate.

38. (Previously Presented) A direct oxidation fuel cell and water generating system, comprising:

a housing;

a source of fuel in fluid communication with said housing;

a source of oxygen in fluid communication with said housing;

a membrane electrode assembly having a catalyzed membrane electrolyte, with an anode aspect and a cathode aspect, disposed within said housing, an anode chamber being defined between said anode aspect of the catalyzed membrane electrolyte and a first exterior portion of said housing, and a cathode chamber being defined between said cathode aspect of the catalyzed membrane electrolyte and a second exterior portion of said housing; and

a plurality of adjustable openings for adjusting the introduction of fuel from said fuel source into said housing and for adjusting the introduction of oxygen from said oxygen source into said housing to determine whether said system functions to generate electricity or to generate water.

39. (Previously Presented) The system as defined in claim 38 further comprising:

a load detachably coupled across said fuel cell which load receives power from said fuel cell in an electricity generating mode.

40. (Previously Presented) The system as defined in claim 38 wherein at least one of said plurality of adjustable openings is an adjustable oxygen port in said housing that can be closed to prevent oxygen from entering said anode chamber.

41. (Previously Presented) The system as defined in claim 40 wherein at least one additional opening of said plurality of adjustable openings is a fuel inlet port in fluid communication with the anode chamber of said fuel cell, which operates to introduce fuel and oxygen into said anode chamber, as the system functions in a water generating mode at said anode chamber.

42. (Previously Presented) The system as defined in claim 40 wherein said adjustable oxygen port is closed to prevent oxygen from entering said anode chamber, and said fuel

inlet port operates to introduce fuel into the anode chamber of the fuel cell, and a load is connected across the fuel cell such that the system functions in an electricity generating mode.

43. (Previously Presented) The system as defined in claim 40 wherein said adjustable oxygen port is closed to prevent oxygen from entering said anode chamber, and said fuel inlet port operates to introduce fuel into the anode chamber of the fuel cell, and a load is uncoupled and not connected across the fuel cell such that there is fuel crossover and the system functions in a water generating mode at the cathode chamber.

44. (Previously Presented) The system as defined in claim 43 further comprising said load being a variable load that can be used to periodically induce fuel crossover, resulting in the generation of water.

45. (Previously Presented) The system as in claim 41 wherein said fuel inlet port introduces fuel into the anode chamber of said housing, and said adjustable oxygen port introduces oxygen into the anode chamber of said housing such that said system functions to generate water, and said system is further coupled to a second fuel cell to deliver water to the anode of said second fuel cell.

46. (Previously Presented) The method as defined in claim 1 including the further step of controlling the amount of fuel that is delivered to said catalyst.

47. (Previously Presented) The method as defined in claim 1 including the further step of controlling the amount of oxygen that is delivered to said catalyst.

48. (Withdrawn) The method as defined in claim 1 wherein the step of reacting at least a portion of said fuel with oxygen includes disposing a water generating assembly including a catalyst in fluid communication with said fuel cell system between said source of fuel and said fuel cell, and providing a controller that controls the amount and introduction of fuel, and oxygen to said water generating assembly and said fuel cell.

49. (Withdrawn) The method as defined in claim 48 including the further step of operating said controller such that said fuel cell generates electricity.

50. (Withdrawn) The method as defined in claim 48 including the further step of utilizing water generated to adjust the concentration of methanol in said fuel cell.

51. (Previously Presented) A method of employing a direct oxidation fuel cell system as a combined power generator, and water generator including the steps of:

(A) providing a housing;

(B) providing a source of fuel in fluid communication with said housing;

(C) providing a source of oxygen in fluid communications with said housing;

(D) providing a membrane electrode assembly having a catalyzed membrane electrolyte, with an anode aspect and a cathode aspect, disposed within said housing, an anode chamber being defined between said anode aspect of the catalyzed membrane electrolyte and a first exterior portion of said housing, and a cathode chamber being defined between said cathode aspect of the catalyzed membrane electrolyte and a second exterior portion of said housing; and

(E) controlling the introduction of fuel and oxygen into said housing to cause said system to function to either generate electricity or to generate water.

52. (Previously Presented) The method of employing a direct oxidation fuel cell system as a combined power generator, and water generator as defined in claim 51 including the further step of:

introducing fuel and oxygen into said anode chamber to oxidize said fuel and to produce water, but no electricity.

53. (Previously Presented) The method of employing a direct oxidation fuel cell system as a combined power generator, and water generator as defined in claim 51 including the further step of:

adjusting the introduction of oxygen in such a manner that oxygen is not introduced into the anode chamber;

adjusting the introduction of fuel into said anode chamber such that fuel is added to said anode chamber; and

connecting a load across said membrane electrode assembly such that power produced is delivered to said load.

54. (Previously Presented) The method of employing a direct oxidation fuel cell system as a combined power generator, and water generator as defined in claim 51 including the further step of:

adjusting the introduction of oxygen in such a manner that oxygen is not introduced into the anode chamber; and

adjusting the introduction of fuel into said anode chamber, while not connecting a load across said membrane electrode assembly, such that fuel is added to said anode chamber to induce fuel cross over and to generate water in said cathode chamber.

55. (Withdrawn) The direct oxidation fuel cell system as defined in claim 21 further comprising a controller in fluid communication with said water generating assembly and

said fuel cell such that said controller controls the introduction of fuel, and oxygen into said water generating assembly to generate water, and controls the introduction of water into said fuel cell.